

Amendments to the Claims

Claims 1-6 (Cancelled)

7. (Currently amended) A method of removing at least some of a material from a semiconductor substrate, comprising:

feeding a single feed gas stream comprising O₂ and less than or equal to 0.001% N₂ (by volume) through an ozone generator to generate a product gas from the feed gas, the product gas comprising ozone; ~~ozone from the feed gas; the feed gas stream comprising O₂ and less than or equal to 0.001% N₂ (by volume); and~~

providing the product gas into a reaction chamber containing a semiconductor substrate; and

contacting the ozone or a fragment of the ozone with a material on a the semiconductor substrate to remove at least some of the material from the semiconductor substrate.

8. (Original) The method of claim 7 further comprising irradiating at least some of the ozone with ultraviolet light prior to the contacting.

9. (Original) The method of claim 7 wherein the material on the semiconductor substrate is photoresist.

10. (Original) The method of claim 7 further comprising mixing the ozone with water vapor prior to the contacting.

11. (Original) The method of claim 7 further comprising mixing the ozone with an organic solvent vapor prior to the contacting.

12. (Currently amended) A method of removing at least some of a material from a semiconductor substrate, comprising:

providing a feed gas consisting essentially of ~~comprising~~ O₂ and from 0% to 0.001% N₂ (by volume);

in an absence of additionally added gases, feeding the feed gas through an ozone generator to generate ozone;

forming a mixture of ozone and organic solvent vapors in a reaction chamber; and
contacting at least some of the ozone and solvent vapors with a material on a semiconductor substrate to remove at least some of the material from the semiconductor substrate.

13. (Original) The method of claim 12 wherein the material on the semiconductor substrate is photoresist.

14. (Original) The method of claim 12 wherein the material on the semiconductor substrate is photoresist; wherein the semiconductor substrate comprises Al₂O₃; and further comprising exposing at least some of the Al₂O₃ to the ozone during the contacting.

15. (Original) The method of claim 12 wherein the material on the semiconductor substrate is photoresist; wherein the semiconductor substrate comprises platinum; and further comprising exposing at least some of the platinum to the ozone during the contacting.

16. (Original) The method of claim 12 further comprising providing a reservoir of volatile organic solvent within the reaction chamber and forming the solvent vapors from the volatile organic solvent.

17. (Original) The method of claim 16 wherein the volatile organic solvent is a liquid.

18. (Original) The method of claim 16 wherein the volatile organic solvent comprises acetone.

19. (Original) The method of claim 16 wherein the volatile organic solvent consists essentially of acetone.

20. (Original) The method of claim 16 wherein the volatile organic solvent comprises cyclohexanone.

21. (Original) The method of claim 16 wherein the volatile organic solvent consists essentially of cyclohexanone.

22. (Original) The method of claim 16 wherein the volatile organic solvent comprises a mixture of cyclohexanone and PGMEA.

23. (Original) The method of claim 16 wherein the volatile organic solvent comprises propylene glycol.

24. (Original) The method of claim 12 further comprising providing a reservoir of volatile organic solvent within the reaction chamber and heating the volatile organic solvent to form the solvent vapors from the volatile organic solvent.

25. (Currently amended) A method of removing at least some of a material from a semiconductor substrate, comprising:

providing a single feed gas stream comprising O₂ and 0% to 0.001% N₂, (by volume);

in an absence of additional feed gases ~~additionally added gases~~, feeding the single feed gas stream through an ozone generator to generate a product gas comprising ozone from the feed gas;

providing the product gas within a reaction chamber;

forming a mixture of ozone and organic solvent vapors in the a reaction chamber;

irradiating at least some of the ozone with ultraviolet light to form ozone fragments from the ozone; and

contacting at least some of the ozone fragments and solvent vapors with a material on a semiconductor substrate to remove at least some of the material from the semiconductor substrate.

26. (Original) The method of claim 25 wherein the material on the semiconductor substrate is photoresist.

27. (Original) The method of claim 25 further comprising providing a reservoir of volatile organic solvent within the reaction chamber and forming the solvent vapors from the volatile organic solvent:

28. (Original) The method of claim 27 wherein the volatile organic solvent is a liquid.

29. (Original) The method of claim 27 wherein the volatile organic solvent comprises acetone.

30. (Original) The method of claim 27 wherein the volatile organic solvent comprises cyclohexanone.

31. (Original) The method of claim 27 wherein the volatile organic solvent comprises a mixture of cyclohexanone and PGMEA.

32. (Original) The method of claim 27 wherein the volatile organic solvent comprises propylene glycol.

33. (Original) The method of claim 25 further comprising providing a reservoir of volatile organic solvent within the reaction chamber and heating the volatile organic solvent to form the solvent vapors from the volatile organic solvent.

34. (Original) The method of claim 25 wherein the material on the semiconductor substrate is photoresist; wherein the semiconductor substrate comprises Al_2O_3 ; and further comprising exposing at least some of the Al_2O_3 to the ozone fragments during the contacting.

35. (Original) The method of claim 25 wherein the material on the semiconductor substrate is photoresist; wherein the semiconductor substrate comprises platinum; and further comprising exposing at least some of the platinum to the ozone fragments during the contacting.